

Work Order ID 48210

June 26, 2009 11:11:15 AM



Page 1

Item ID: D3476-7

Accept



Setup Start



Revision ID: B

Stop



Item Name: Tube

Start Date: 15/07/2009 Start Qty: 20.00



Cust Item ID:

Required Date: 03/08/2009 Req'd Qty: 20.00



Customer:

Reference:

Approvals:

Process Plan:

W

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3476

Rev B

100

0.00



SHEAR

0.00

Shear

Memo

Shear

Cut Flat pattern as per Dwg D3476

110

0.00



Small Fab

0.00

Small Fab

Memo

Small Fab

1-Deburrl 2-Roll as per Dwg D3476 3-Form Bead as per Dwg D3476 Using Rotary Machine. 4-Spot Weld as per Dwg D3476 and Dart QSI 018 5-Cut 69 Deg Angle as per Dwg D3476.

120

0.00



QC# Inspect visual per QSI004- Fusion Welds

0.00

QC

Memo

Quality Control

09/07/15

*1-Debur m.h 09/07/07
m.h 09/07/14*

(20X)

SB 09/07/15-19 ~~17~~ 19

(PD) →

1st page on old w/o

Work Order ID 48210

June 26, 2009 11:11:15 AM



Page 2

Item ID: D3476-7

Accept



Setup Start



Revision ID: B

Stop



Item Name: Tube

Start Date: 15/07/2009 Start Qty: 20.00



Cust Item ID:

Required Date: 03/08/2009 Req'd Qty: 20.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

140

Identify as per dwg & Stock Location: 160

0.00



Packaging

Memo

0.00

Packaging

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

⇒ 802/07/15

19

9/7/15 (190) Sy

09/07/16

mf 09-07-16

Picklist Print

June 26, 2009 11:11:14 AM

Page 1

Work Order ID: 48210

Parent Item: D3476-7RevB

Parent Item Name: Tube



Comments:

Start Date: 15/07/2009

Required Date: 03/08/2009

Start Qty: 20.00

Required Qty: 20.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
✓ M304S26GA 		Purchased	No				sf	0.0000	2.0000 			

304/316 0.018 SHEET

Date: Tuesday, 26/05/2009 2:12:50 PM
User: Julie Dawson

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: TUBE
Job Number	: 48210		
Estimate Number	: 12171		
P.O. Number	:	Part Number	: D34767
This Issue	: 26/05/2009 S.O. No. :	Drawing Number	: D3476 REV.B
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : SMALL / MED FAB	Drawing Revision	: B
Previous Run	: 47917	Material	:
Written By	:	Due Date	: 02/06/2009 Qty: 20 Um: Each
Checked & Approved By	: <u>JUD 09.05.26</u>		
Comment	: Est Rev:A New Issue 06-02-03 JLM Est Rev:B 09-02-17 rev.b as per dwg DD verified by:EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M304S26GA	304/316 0.018 SHEET
-----	-----------	---------------------



Comment: Qty.: 0.1072 sf(s)/Unit Total : 2.1441 sf(s)
Pick:
304/316 0.018 SHEET
(M304S26GA)
Batch: 109398 u for Frals 09.06.16

2.0	SHEAR	SHEAR
-----	-------	-------



Comment: SHEAR
Cut Flat pattern as per Dwg D3476

3.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
-----	-------------	-------------------------------



Comment: SMALL & MEDIUM FAB RESOURCE 1

- 1-Deburr
- 2-Roll as per Dwg D3476
- 3-Spot Weld as per Dwg D3476 and Dart QSI 018
- 4-Form Bead as per Dwg D3476 Using Rotary Machine.

SB 09/07/15
M-1/04/07/15

(20)
(19)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3476-7 PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: [Signature] Date: 09.07.16

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: <u>48210</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>09/07/15</u>	<u>110</u>	<u>1 part had two (2) beads.</u> <u>RC: Employee in training.</u>	<u>[Signature]</u> <u>05/14/12</u>	<u>Scrap & destroy</u> <u>no replace</u>	<u>SB</u> <u>09/07/15</u>	<u>S</u> <u>09/07/15</u>	<u>[Signature]</u> <u>05/14/12</u>	<u>[Signature]</u> <u>09/07/15</u>

NOTE: Date & initial all entries

Date: Tuesday, 26/05/2009 2:12:50 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE

Job Number: 48210

Part Number: D34767

Job Number:



Seq. #:

Machine Or Operation:

Description :

4.0

QC11

VISUAL INSPECTION OF SPOT WELDING



Comment: VISUAL INSPECTION OF SPOT WELDING

SB 09/07/15 (19)

5.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 09/07/15 (18) counts

6.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

7.0

QC21

FINAL INSPECTION/W/O RELEASE



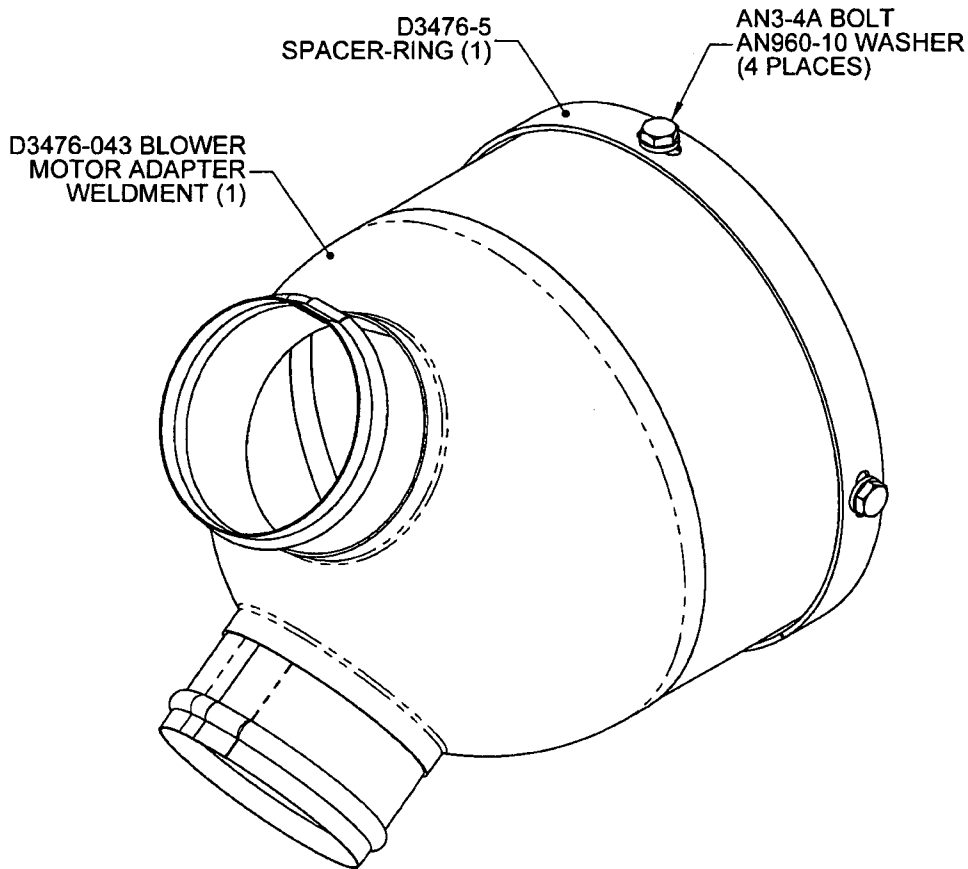
Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



DART**RELEASED**
09/10/20 MB

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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3476	REV. B SHEET 1 OF 7
DATE 08.12.19		TITLE BLOWER MOTOR ADAPTER	SCALE 1:2
A	06.01.27	NEW ISSUE	
B	08.12.19	ADD TOL & NOTE SHT3/7; REDESIGN -1F; MATL SPEC WAS MIL-S-5019	

**D3476-041 BLOWER MOTOR ADAPTER**

1) IDENTIFY WITH DART P/N D3476-041 USING
FINE POINT PERMANENT INK MARKER

QTY -041	P/N	DESCRIPTION
X	D3476-041	BLOWER MOTOR ADAPTER
1	D3476-043	BLOWER MOTOR ADAPTER WELDMENT
1	D3476-5	SPACER-RING
4	AN3-4A	BOLT
4	AN960-10	WASHER

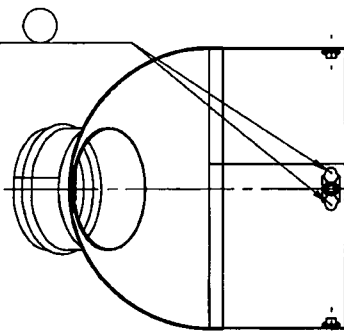
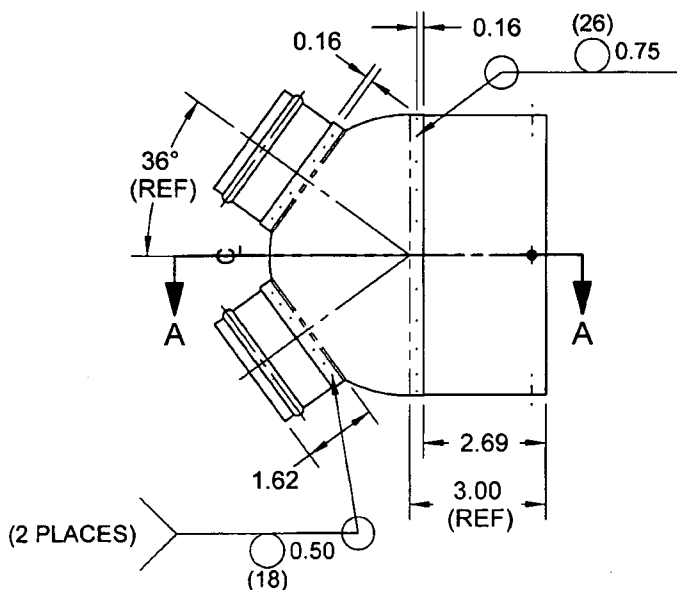
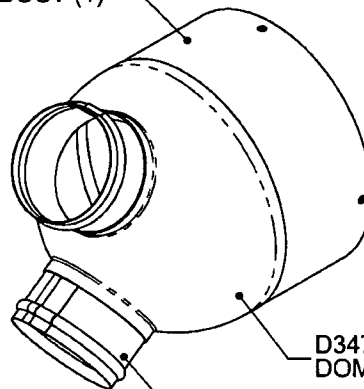
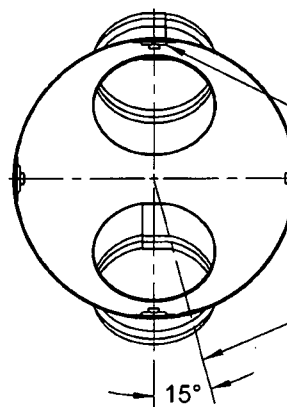
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DATE 08.12.19	TITLE BLOWER MOTOR ADAPTER		SCALE 1:4

RELEASED
*3/10/20*LOCATE AND
SPOT WELD
NUT PLATES
(4 PLACES)**SECTION A-A**D3476-1
DUCT (1)D3476-3
DOME (1)D3476-7 TUBE
(2 PLACES)NAS-1031C3W
NUT PLATES
(4 PLACES)OFFSET SEAM
ON DUCTSHOP COPY
RETURN TO
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NO. *4820***D3476-043 BLOWER MOTOR
ADAPTER WELDMENT****NOTES:**




- 1) SPOT WELD PER DART QSI 004
- 2) FINISH: NONE
- 3) PART IS SYMMETRICAL ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -043	P/N	DESCRIPTION
X	D3476-043	BLOWER MOTOR ADAPTER WELDMENT
1	D3476-1	DUCT
1	D3476-3	DOME
2	D3476-7	TUBE
4	NAS1031C3W	NUTPLATE

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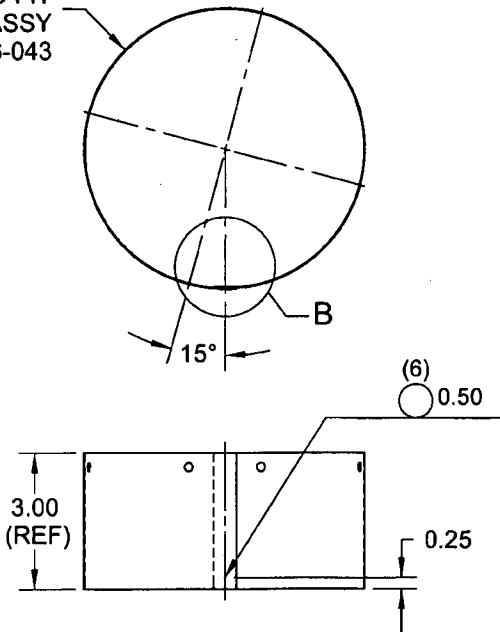
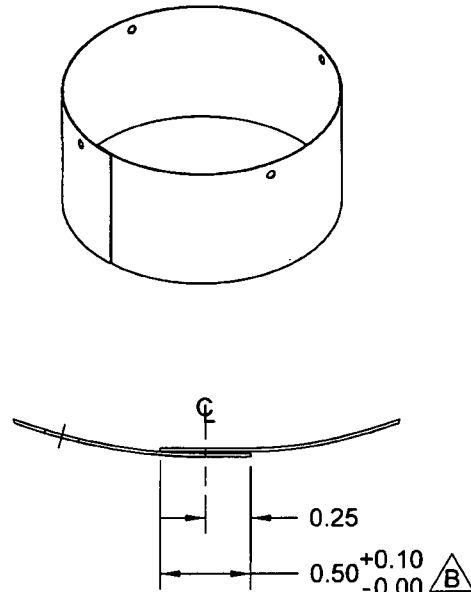
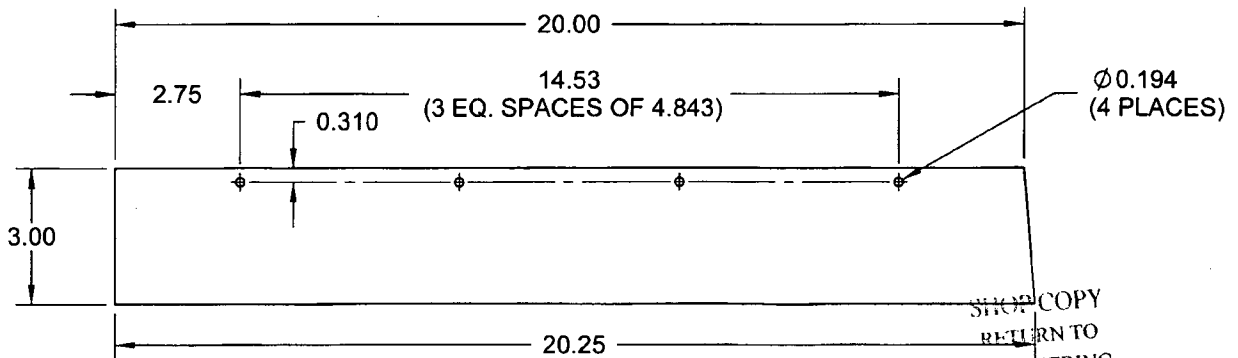
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DATE 08.12.19	TITLE BLOWER MOTOR ADAPTER		SCALE 1:4

RELEASED
09/01/2019

B $\phi 6.16$ (REF)
FORM TO FIT
D3476-3 AT ASSY
OF D3476-043

**D3476-1 DUCT****DETAIL B**
SCALE 1:1**B** **D3476-1F DUCT FLAT PATTERN****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5059 (ANNEALED) 26 GAUGE SS (0.018 THICK)
OR AMS 5513/5524, 26 GAUGE SS (0.018 THICK)
(REF. DART SPEC. M304S26GA)
- 2) SPOT WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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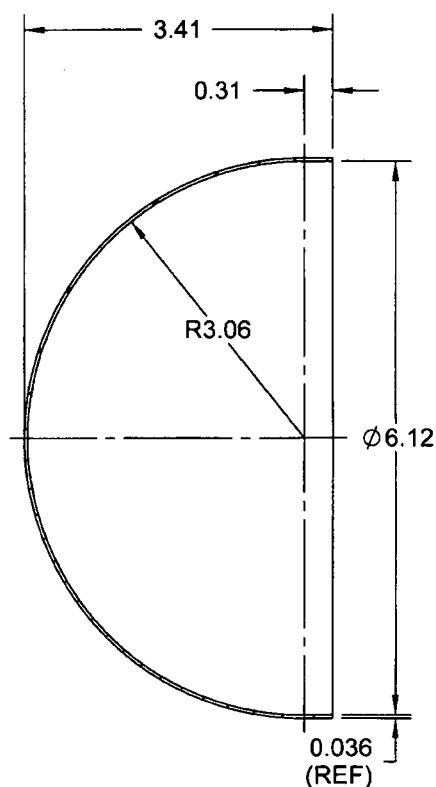
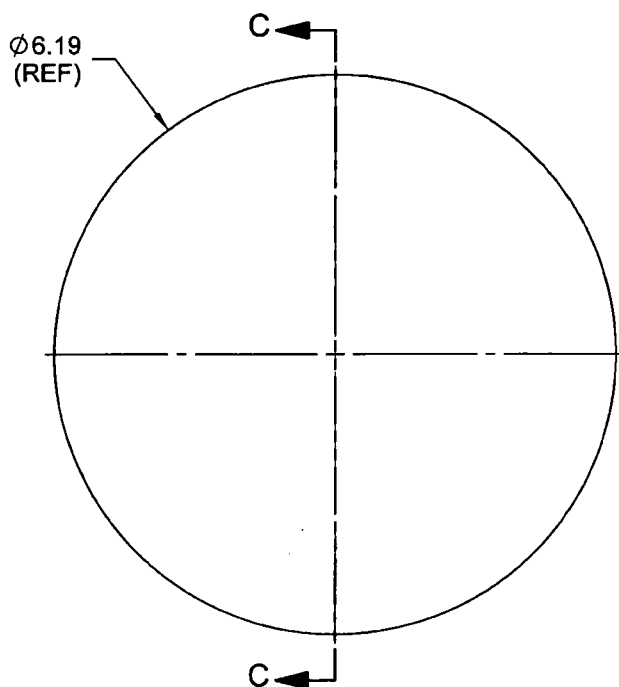
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DATE 08.12.19		TITLE BLOWER MOTOR ADAPTER	SCALE 1:2

RELEASED
09/01/20 11/2



SECTION C-C

D3476-3S DOME, SPINNING DETAIL

NOTES:

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.036 THICK PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524 (REF. DART SPEC. M304S20GA)
- 2) FORM BY SPINNING TO DIMENSION WITHOUT EXCESS THINNING OF MATERIAL (MINIMUM THICKNESS = 0.025").
- 3) FINISH: NONE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

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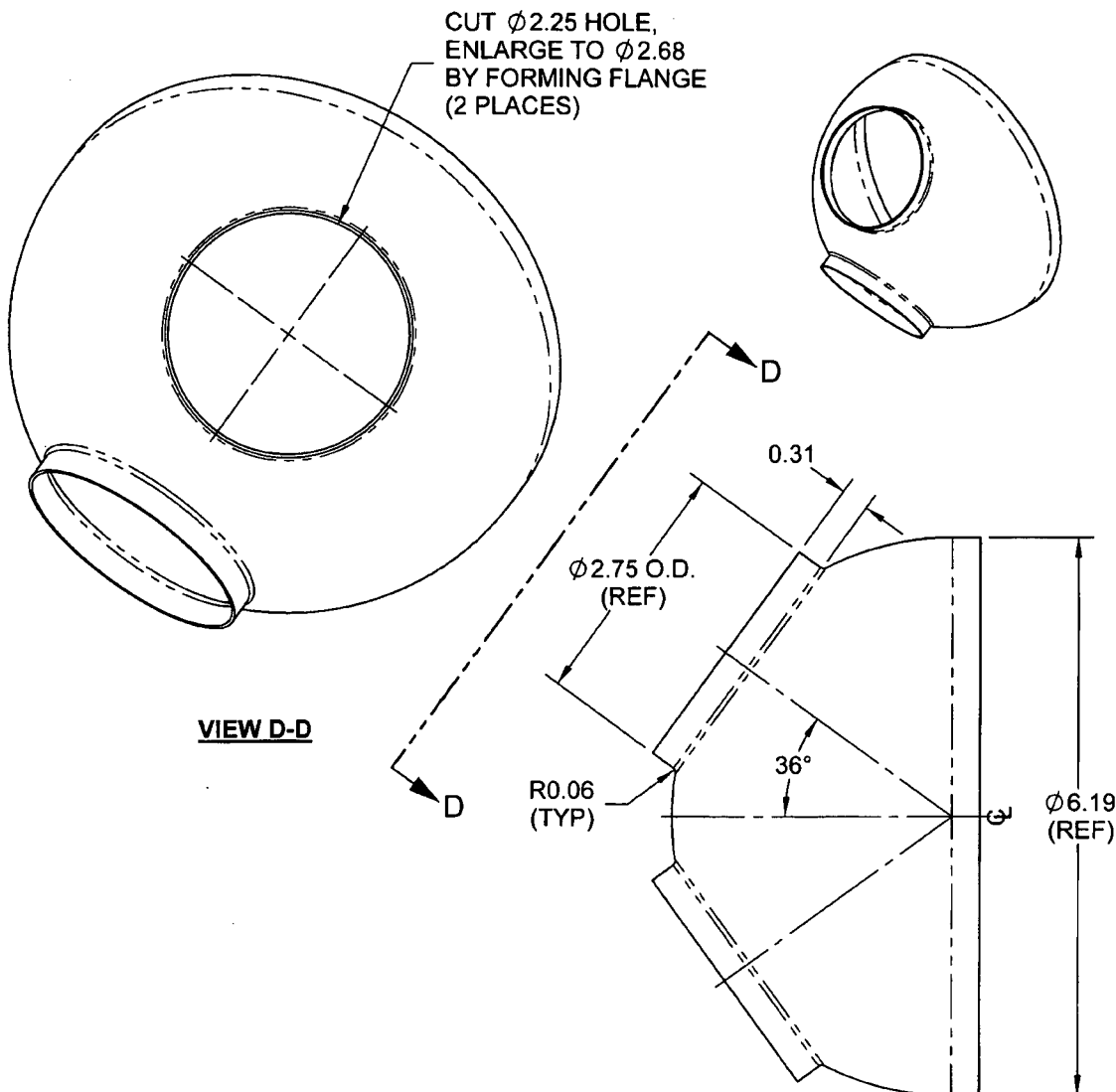
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DATE 08.12.19		TITLE BLOWER MOTOR ADAPTER	SCALE 1:2

RELEASED
9/2/30 *[Signature]*



D3476-3 DOME

NOTES:

- 1) MATERIAL: MAKE FROM D3476-3S
- 2) FINISH: NONE
- 3) PART IS SYMMETRICAL ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

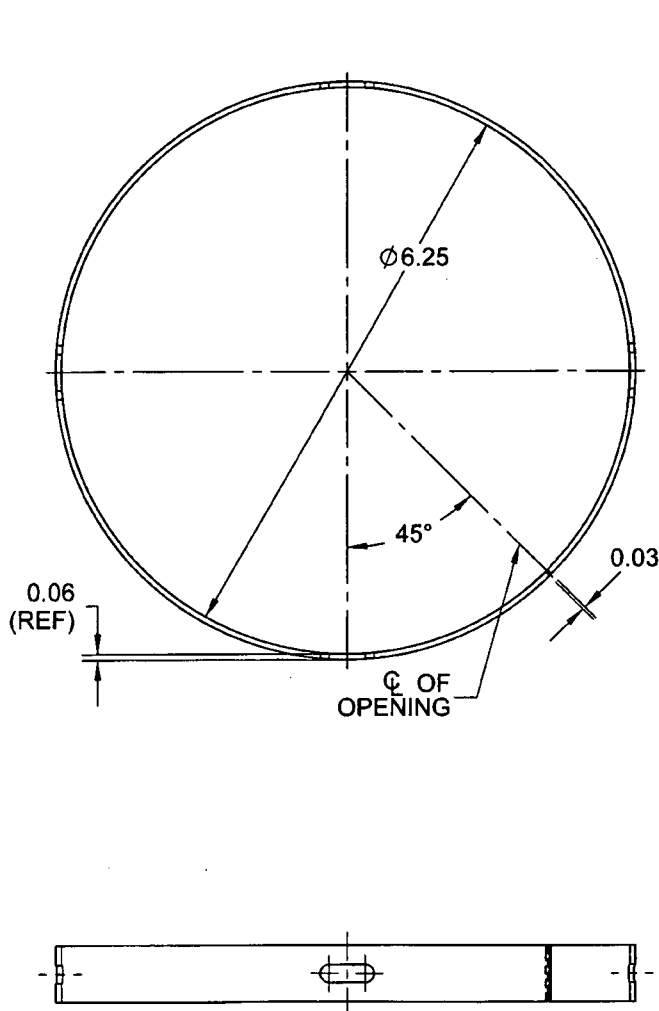
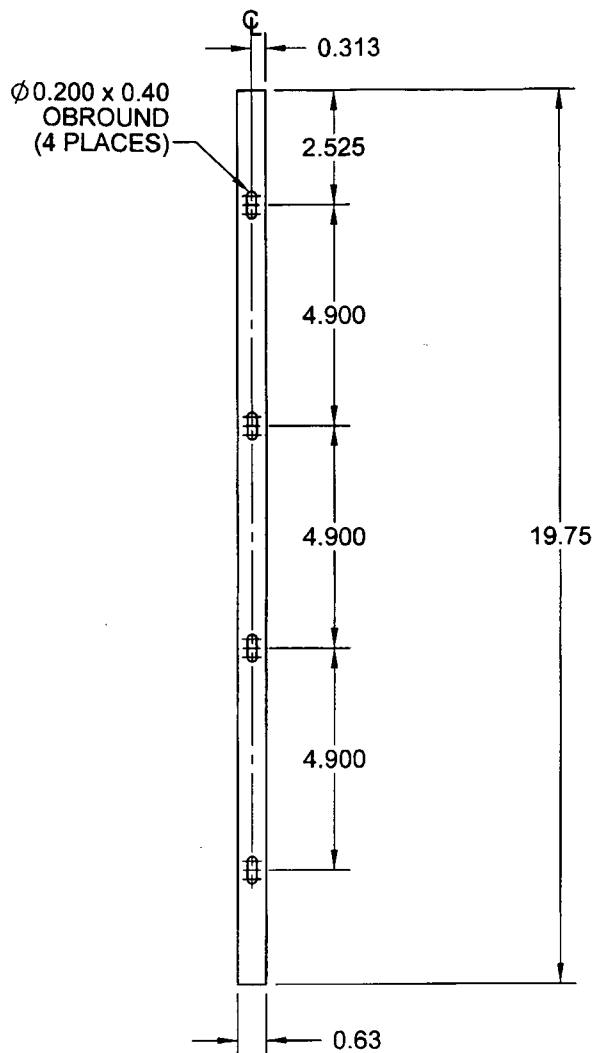
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DATE 08.12.19		TITLE BLOWER MOTOR ADAPTER	SCALE 1:2

RELEASED
[Handwritten: 01/10/2010]**D3476-5 SPACER-RING****D3476-5F SPACER-RING
FLAT PATTERN****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.063 THICK, PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524 (REF. DART SPEC. M304S16GA) NITRIZED COPY
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

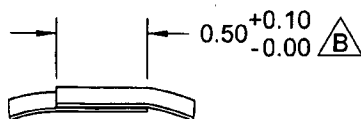
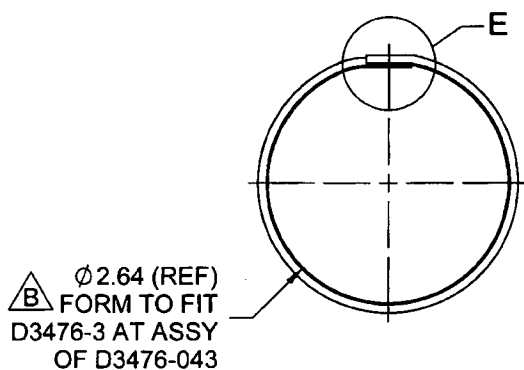
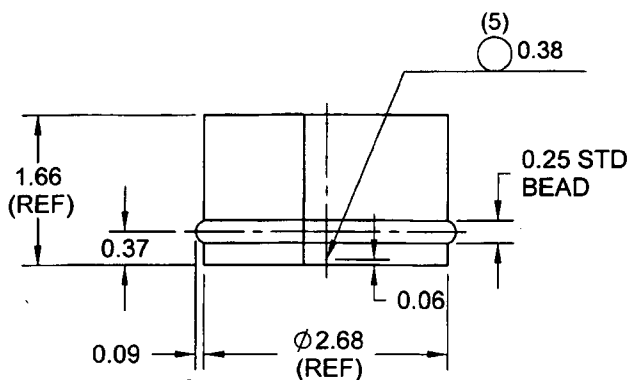
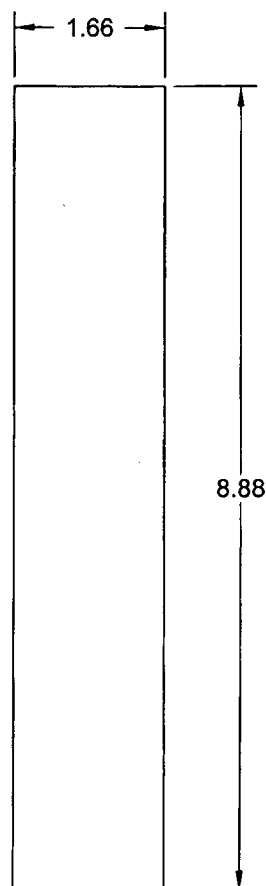
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DATE 08.12.19		TITLE BLOWER MOTOR ADAPTER	SCALE 1:2

RELEASED
09/01/30 M/PDETAIL E
SCALE 1:1**D3476-7 TUBE****D3476-7 TUBE
FLAT PATTERN****NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5059 (ANNEALED) 2B FINISH
OR AMS 5513/5524, 26 GAUGE SS (0.018 THICK)
(REF. DART SPEC. M304S26GA)
- 2) SPOT WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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SPOT WELD TEST RECORD

AMS-W-6858A

CLASS 'C'

TEST NO#: 69

EMPLOYEE: Mark Gregory

PART NUMBER: D3476-7

JOB NUMBER: B45216

MATERIAL TYPE: 304L

MATERIAL THICKNESS: .018

GROUP SPECIFICATION



Group 1: Aluminum & magnesium



Group 2: Iron; nickel; cobalt



Group 3: Titanium SS

TEST RESULTS

	PASS	FAIL
VISUAL:	[<u>✓</u>]	[]
PENETRATION:	[<u>✓</u>]	[]
PULL STRENGTH:	[<u>✓</u>]	[]

PSI Reading: _____

Qualified in accordance with standard AMS-W-6858A and QSI 004 (ref: 4.3)

DATE OF TEST COUPON: 09/07/14

QUALIFIER: SB